II. Remarks

Claims 2, 3, 5, 6, 9, 12, 14, 15-17, 20, 21, and 26-32 are pending in this application. Claims 2, 3, 5, 6, 9, 12, 14, 15-17, 20, 21, 26-29, and 32 stand rejected as being unpatentable over U.S. Patent No. 4,460,182 ("Brissette") in view of U.S. Patent No. 4,453,723 ("Greenwald"), while claims 30 and 31 are indicated as being allowable but are objected to as being based upon a rejected base claim. Reconsideration and further examination of claims 2, 3, 5, 6, 9, 12, 14, 15-17, 20, 21, and 26-32 are respectfully requested.

By this Paper, Applicants have amended claims 30 and 31 into independent form to thereby include the limitations of their respective former base claims 27 and 15. No new matter has been added by these amendments. The allowance of claims 30 and 31 as amended is respectfully requested.

As to the substantive rejections presented in Paper #12, claims 2, 3, 5, 6, 9, 12, 14, 15-17, 20, 21, and 26-29, and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Brissette in view of Greenwald.

As noted by Applicants in the Amendment accompanying their RCE filed September 30, 2003, Brissette teaches a slip-type drive shaft in which a "resilient one piece sealing member 16" provides a seal between two relatively-longitudinally-sliding shaft members (col. 2, lines 61-63). Brissette teaches that the "preferred sealing member 40 (sic: 16) is made out of a resilient material, usually neoprene rubber, with a durameter harness of 60 to 70 and a minimum tensile strength of 2000 psi (140 kg/cm2)" (col. 3, lines 18-21). Due to its particular material and its disclosed square cross-section, Brissette teaches that "the resulting close contact between edges 60 and shaft 34 will generally prevent lubricant from leaking out of cavities 38 and 40 of slip yoke 12 and prevent dust from entering" (col. 3, lines 26-45).

Thus, Brissette expressly uses the resiliency of the specific material from which the sealing member 16 is formed, as well as its specific square-cross sectional molded shape, to achieve the disclosed "resulting close contact" of the

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PO Box 10395
Chicago, IL 60611-5599

seal's "edges 60" and the shaft 34. As such, Brissette neither teaches nor suggests a seal for a telescoping driveshaft, or a driveshaft assembly incorporating a seal, in which the seal's "relatively soft, compliant" material is resiliently biased toward the shaft, not by the material's own resiliency and molded shape, but by a spring member that is disposed within the molded seal itself, as recited in Applicants' amended independent claims 15 and 27. Indeed, Brissette's divergent teaching is emphasized by the rather rigid properties of its preferred seal material, which simply cannot be characterized as a "relatively soft, compliant" material as recited by Applicants in independent claims 15 and 27.

In the outstanding action, the Examiner seeks to combine Brissette with Greenwald, characterizing Greenwald as teaching the use of an imbedded garter spring to radially bias a sealing lip towards a shaft. However, Greenwald is directed at a rotationally-static "duct or connector" seal, as recited throughout his "Statement of Problem" section beginning at column 1, line 14 ("Rubber seals, particularly those used in aircraft connectors and ducts..."), with the term "connector" being clarified, for example, when describing the embodiment illustrated in Figure 15 at column 7, lines 41-48, stating:

> The seals 10 and 70 used with connector 68 can also be applied to offset connectors 130 as shown in FIG. 15. The offset connectors are used to connect ducts or tubes in aircraft where the axes of these ducts are offset or misaligned from each other. As seen in FIG. 15, the opposite ends of connector 130 are not in alignment with each other, but they are designed to be aligned with and receive ducts 132 and 134 as shown. The end portions of the offset connector 130 are like that shown in FIG. 14. Cylindrical sleeves 136 and 138 are secured by any suitable means to the outer surface of the ducts and the inner end of the sleeves are bent radially outwardly to define collars 140 and 142. Restraining cables 144 are mounted on these collars in uniformly angularly spaced relationship around the axis of the ducts to hold the ducts inside the connector 130. Any suitable means, not shown can be provided to tighten these cables as required.

(Emphasis added.) Moreover, every one of the embodiments disclosed in Greenwald are directed to "ducts," and Greenwald expressly claims "a ring-shaped seal ... comprising a work-engaging surface adapted to make a sealing engagement

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with a surface of a duct..." (Greenwald, claim 1, col. 8, ll. 47-51). And Greenwald itself makes clear that it was never directed to seals accommodating cyclical axial slip as encountered in a telescoped driveshaft but, rather, is directed at sealing "ducts and tubes" whose relative longitudinal relationship is preferably fixed by connecting radial flanges or "collars" on the respective ducts by "restraining cables" as shown in Figures 14-16, and described in the accompanying text at column 7, lines 34-58, with no relative longitudinal movement past a sealing lip.

Thus, Greenwald addresses a totally different problem (deterioration of static duct seals/connectors, particularly due to heat), in a totally different context (rotationally- and longitudinally-static, non-telescoped ducts or tubes), to provide a totally different seal (the convex sealing portions of each Greenwald disclosed embodiment is defined by layers of fiberglass cloth, again, for heat resistance, in stark contrast to Applicant's seal as recited in independent claims 15 and 27, whose "inner portion" of "inner surface," itself "molded from a relatively soft, compliant material," is itself radially biased into engagement with the splined portion of the shaft/telescoped member).

Simply stated, given Brissette's divergent teaching and, further, in view of Greenwald's explicit and nonanalogous "problem statement," neither applied reference provides any teaching, suggestion, or motivation for the combination asserted by the Examiner in rejecting independent claims 15 and 27, claims 2, 3, 5, 6, 9, 12, 14-17, 20, 21, 26-29, and 32 are patentable over the art of record in this application, and that the obviousness rejections of those claims should be withdrawn in favor of allowance.

In view of the foregoing, the allowance of claims 2, 3, 5, 6, 9, 12, 14-17, 20, 21, and 26-32 is respectfully requested.

Respectfully submitted,

04/23/04
Date

Hugo A. Delevie (Reg. No. 32,688)

HAD/sko

BRINKS HOFER GILSON & LIONE
PO Box 10395
Chicago, IL 60611-5599